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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,954	01/17/2004	Paul S. Prevey	LRI-011PAT	8171
7590	01/12/2006		EXAMINER HONG, JOHN C	
Mark F. Smith Suite 102 7577 Central Park Boulevard Mason, OH 45040			ART UNIT	PAPER NUMBER
			3726	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

7/5/05

<b>Office Action Summary</b>	Application No. 10/759,954	Applicant(s) PREVEY, PAUL S.	
	Examiner John C. Hong	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 20 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 16-20 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 is/are allowed.
- 6) ☒ Claim(s) 1-11, 13 and 14 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of claims 1-15 in the reply filed on 10/20/05 is acknowledged.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1,3-10 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by James et al. (U.S. Patent 6926970).

James et al. disclose: Regarding Claim(s) 1 and 3-10, a method of inducing residual compressive stresses in the surface of a part comprising the steps of: performing a first operation to induce deep compressive surface stresses along a portion of the surface of the part; and performing a second operation to induce more shallow compressive surfaces stresses along a portion of the surface of the part (Fig. 3,4; col.8, line 50-col.9, line 15; col.11, lines 37-40;col.11, line 60-col.12, line 2; col.55, lines 55-62); and Regarding Claim(s) 14, a method of inducing residual compressive stresses in the surface of a part comprising the steps of: selecting at least one region inducing a first layer of compressive along the surface of the part for stresses within

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the surface of the part; performing a first burnishing operation using a first burnishing member to induce a first layer of compressive surface stresses along a selected region of the part, and performing a second burnishing operation using a second burnishing member to induce a second layer of compressive surfaces stresses along a selected region of the part, wherein the first burnishing operation is performed when the temperature of the surface is at a first temperature and the second burnishing operation is performed when the temperature of the surface is at a temperature different than the first temperature(Fig. 3,4; col.8, line 50-col.9, line 15; col.11, lines 37-40;col.11, line 60-col.12, line 2; col.55, lines 55-62).

4. Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by SU701777.

'777 discloses a method of inducing residual compressive stresses in the surface of a part comprising the steps of: selecting at least one region along the surface of the part for inducing a first layer of compressive stresses within the surface of the part, performing a first burnishing operation using a first burnishing member to induce a first layer of compressive surface stresses along a selected region of the part ; and performing a second burnishing operation using a second burnishing member to induce a second layer of compressive surfaces stresses along a selected region of the part, wherein said first burnishing member (10,11) has a first diameter and said second burnishing member having a second different diameter (Abstract; Fig. 1).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over James et al. (U.S. Patent 6926970) in view of SU701777.

James et al. teach the limitations except the first operation is performed with an apparatus for inducing residual compressive stresses comprising a burnishing member having a first diameter and the second operation is performed with a burnishing member having a second diameter.

'777 teaches the first operation is performed with an apparatus for inducing residual compressive stresses comprising a burnishing member having a first diameter and the second operation is performed with a burnishing member having a second diameter (Abstract; Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the apparatus for inducing residual compressive stresses comprising a burnishing member having a first diameter and the second operation is performed with a burnishing member having a second diameter, as taught by '777 on the method of James et al. so as to improve the surface finish.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over SU701777 in view of James et al. (U.S. Patent 6926970).

'777 teaches the limitations except the temperature of the surface of the part during the first burnishing operation is of a first temperature and the temperature of the surface of the part during the second burnishing operation is of a second different temperature.

James et al. teach the temperature of the surface of the part during the

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first burnishing operation is of a first temperature and the temperature of the surface of the part during the second burnishing operation is of a second different temperature (col. 11, lines 57-66).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the temperature of the surface of the part during the first burnishing operation is of a first temperature and the temperature of the surface of the part during the second burnishing operation is of a second different temperature, as taught by James et al. on the method of '777 so as to have longer retention of residual compressive stress.

*Allowable Subject Matter*

8. Claim 15 is allowed.

9. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John C. Hong whose telephone number is 571-272-4529. The examiner can normally be reached on M-F(07:00-16:30)First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'J. Hong', with a horizontal line crossing through the middle of the letters.

John C. Hong  
Primary Examiner  
Art Unit 3726

jh  
January 6, 2006